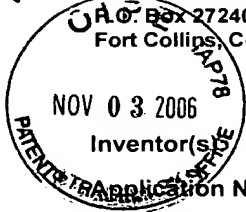


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PATENT APPLICATION

ATTORNEY DOCKET NO. 10014498-1



IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s) Jeff Zentner et al

Application No.: 09/895,703

Filing Date: June 29, 2001

Confirmation No.: 6469

Examiner: David G. Cervetti

Group Art Unit: 2136

Title: KEY PAD DECODER

Mail Stop Appeal Brief - Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF REPLY BRIEF

Transmitted herewith is the Reply Brief with respect to the Examiner's Answer mailed on September 15, 2006.

This Reply Brief is being filed pursuant to 37 CFR ^{41.41} ~~1.136(a)~~ within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

(Note: Failure to file a Reply Brief will result in dismissal of the Appeal as to the claims made subject to an expressly stated new ground rejection.)

No fee is required for filing of this Reply Brief.

If any fees are required please charge Deposit Account 08-2025.

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Respectfully submitted,

Jeff Zentner et al

By

John A. Miller

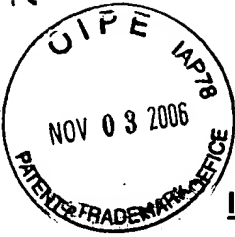
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PATENT

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APPELLANT'S REPLY BRIEF

Sir:

This is Appellant's Reply Brief pursuant to 37 CFR 41.41 in response to the Examiner's Answer mailed September 15, 2006.

Appellant has argued that Kwon does not teach that his key scan circuit compares an added key press value to a predetermined value to determine if multiple keys have been simultaneously pressed, as claimed in independent claims 1 and 10. Appellant has stated that the only teaching in Kwon of determining whether multiple keys have been pressed states that the key scan circuit determines that multiple keys have been pressed if more than one bit in the memory MA is zero (0) or more than one bit in the memory MB is one (1).

The Examiner has stated that Kwon does assign a predetermined value to the keys even though the keys have all the same value, particularly a "0" for port PB and a "1" for port PA (page 8, paragraph 3, Examiner's Answer). The Examiner goes on

to state that when a key is pressed, a logical change occurs at the ports PA and PB that includes an AND operation (page 9, paragraph 1, Examiner's Answer). Based on this analysis, the Examiner concludes that Kwon teaches comparing an added key press value to a predetermined value to determine if multiple keys have been pressed.

Appellant submits that this analysis is an improper characterization of Kwon, and is an improper analysis of this element of Appellant's independent claims. It is clear from Appellant's specification, claims and repeated arguments to the rejections that each key is assigned its own key press value. It is also clear from the specification, claims and repeated arguments to the various rejections that these key values are added or accumulated each time a key is pressed. It is also clear from specification, claims and repeated arguments to the rejections that the added value is then compared to a predetermined value to determine if multiple keys have been pressed, where the system determines that multiple keys have been simultaneously pressed if the values do not equal. Therefore, regardless of which keys are pressed, the order of the keys that are pressed and the number of keys that are simultaneously pressed, the key press values are added together, and if they do not equal a predetermined value, i.e., a single value that is programmed into the system, then multiple keys have been pressed rendering the key presses invalid.

Appellant submits that assigning the same logical value to every key, and performing a logical AND operation to determine if multiple keys have been pressed as disclosed by Kwon is completely different than this element of Appellant's claims.

Appellant has also argued that Rush does not teach using the same number of steps to determine which key is activated because the number of steps would be determined based on how many keys the user presses. The Examiner states that

this has no relevancy to the claim language because Rush generates a BCD value associated with the value of the key of the highest priority and not how many other keys the user presses (page 8, paragraph 1, Examiner's Answer). Column 4, lines 20-25 of Rush states that to select digit 5 all the user needs to do is depress the desired key labeled 5 and refrain from pressing any key representing a numerically larger digit. The depicted simultaneously selection of keys representing 2, 3, and 4, which is virtually inevitable given the small size and close spacing of the keys 24, will be ignored by the priority encoder 36 such that the key corresponding to 5 is solely recognized as a valid key press. The priority encoder 26 therefore generates a BCD output (10101) that is provided to an interface circuit 28.

Appellant submits that just because the keys 2, 3 and 4 will be ignored by the priority encoder 26 does not mean that the priority encoder 26 does not determine that they were pressed. Appellant submits that in order for the priority encoder 26 to know that key 5 was the highest priority key, it would have to know what other keys have been pressed. Because the number of key that the user presses isn't relevant, then the number of steps that the priority coder has to go through to determine the highest priority key would not necessarily be the same.

For the reasons given above and in the Appeal Brief, the §103 rejections should be reversed.

Respectfully submitted,

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Dated: 10/31/06

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